

Message

From: Fennessy, Christopher [christopher.fennessy@Rocket.com]
Sent: 11/28/2018 4:00:07 PM
To: Keller, Lynn [Keller.Lynn@epa.gov]; Lae, Tom/SAC [Tom.Lae@jacobs.com]
CC: Lane, Jackie [Lane.Jackie@epa.gov]
Subject: RE: [EXTERNAL] Request for revised Proposed Plan figures from Aerojet for the Area 40 PP

Thanks Lynn – This will help a lot. I do have a couple of comments, which I embedded below.

Christopher M. Fennessy, P.E.
Aerojet Rocketdyne, Inc.
Engineering Manager, Site Remediation
PO Box 13222
Sacramento, California 95813-6000
Ph: 916-355-3341
Fax: 916-355-6145
Email: Christopher.Fennessy@Rocket.com

From: Keller, Lynn [mailto:Keller.Lynn@epa.gov]
Sent: Tuesday, November 27, 2018 2:34 PM
To: Lae, Tom/SAC; Fennessy, Christopher
Cc: Lane, Jackie
Subject: RE: [EXTERNAL] Request for revised Proposed Plan figures from Aerojet for the Area 40 PP

Hi, Chris. Just adding a bit of clarification to our A40 PP figures request.... New comments are in green:

Couple of questions:

- When you say narrow figures 2 and 3, you want the viewport reduced to encompass only the pertinent information on the figure? **Yes. For Fig 2, add in a label for Prairie City Road so the reader can be oriented.** We're trying to ensure the reader can immediately figure out where Area 40 is based on landmarks like major roads and understand all of the information presented on the figure (or delete extra info that isn't needed). Figures 2, 3, and 4 all need major road references, sharper focus (please send us figure files individually), a more narrow viewport as you mentioned, a key for colors/symbols/etc., and figure titles without acronyms.
- Do you mean Final FS Figure 2-4 (HH Risk future on-site resident GW, SV, indoor air pathway)? Other? **Lynn – can you clarify? Fig 2-4 is very busy.** Figures 3 and 4 need to be revised based on the Final FS please; it's not clear to the reader what these figures represent. Our toxicologist and I would also like some more easily understood figure that conveys the risks posed by source areas and groundwater plume, as well as the areas where VM is required and the 100' buffer; FS Fig 2-4 has the information, but wouldn't be understandable to the reader—esp. on a tiny figure in a PP. Could you please come up with a simplified figure that summarizes the approach with regard to human health risk? The goal of this figure is to illustrate the extent of contamination measured by cancer risk, help justify the need for cleanup, and illustrate the mitigation boundaries for groundwater and soil vapor.
- Are you looking for plan view and elevation view for PRB? **Something cartoon-y should be fine.** Yes, the goal with this request is to present the reader with an idea of what a constructed PRB wall resembles, where it will be located, and how it works at a very basic level. Showing contaminants funneling toward and through the wall then over to GET AB would help illustrate why a wall of this size and location should work well. A

reference to the successful pilot study well on the figure would also help illustrate that we know this type of remedy works in this area on a smaller scale.

- Does Figure 1-13 work for GET AB with plumes? **If there is a figure that is much more simplified, that would be preferred. There are a lot of tiny details/features in fig 1-13 so it is difficult to see the necessary info – especially when it is further reduced in size to fit in the PP.** I think a new, simplified figure would be more effective than using Figure 1-13. No need to include GET AB extraction wells that aren't pulling in A40 contamination. However, in Figure 1-13 the northern extraction wells shown, groundwater flow direction arrows, and plume contours don't illustrate very well that the plume from A40 is indeed being completely treated by GET AB. There are no extraction wells to the west where the groundwater flow areas point to from A40, and the plume looks undefined to the N, W, and S of Area 40. Also the groundwater plume contours should illustrate the extent of groundwater contamination, from high to low. We do not believe that the GET A extraction wells are currently extracting Area 40 water. The Area 40 chemicals have crossed Aerojet Road and are now co-mingled with chemicals released within the liquid rocket test areas. All of these chemicals are migrating toward the GET A extraction wells. I anticipate it will be another 20 years before Area 40 chemicals actually reach the GET A extraction wells. So, the plume that is shown being captured at the GET A extraction wells is for the chemicals in a specific layer, which also contains Area 40 chemicals.
- Jackie and I are on board with not downing a forest for this PP effort. We thought the best way to proceed would be for Aerojet to mail out post cards with a simple hyperlink for people to go to and download the PP, along with repository info and contact info on how to get a hard copy of the PP mailed them if necessary. Suggest you pass this by Janis before making this decision. Making decisions in a box is one of the reasons why the community and EPA felt DTSC's process did not work.

Let's talk more about this tomorrow if it isn't clear. Thank you for helping with the A40 PP figures, Chris, Lynn

Lynn M. Keller, EI, PMP
Remedial Project Manager SFD-7-1
415.947.4162

US EPA Region 9
75 Hawthorne St, SFD-7-1
San Francisco, CA 94105

From: Lae, Tom/SAC <Tom.Lae@jacobs.com>
Sent: Tuesday, November 27, 2018 10:12 AM
To: Fennessy, Christopher <christopher.fennessy@Rocket.com>; Keller, Lynn <Keller.Lynn@epa.gov>
Cc: Lane, Jackie <Lane.Jackie@epa.gov>
Subject: RE: [EXTERNAL] Request for revised Proposed Plan figures from Aerojet for the Area 40 PP

Chris- See below

Tom Lae, PG | Jacobs | Geologist | Sr. Project Manager | Talent Supervisor | BIAF-GES | 1.916.286.0246 direct | 1.916.296.0897 mobile
tom.lae@jacobs.com | www.jacobs.com

From: Fennessy, Christopher <christopher.fennessy@Rocket.com>
Sent: Wednesday, November 21, 2018 1:23 PM
To: Keller, Lynn <Keller.Lynn@epa.gov>
Cc: Lae, Tom/SAC <tom.lae@jacobs.com>; Lane, Jackie <Lane.Jackie@epa.gov>
Subject: RE: [EXTERNAL] Request for revised Proposed Plan figures from Aerojet for the Area 40 PP

Couple of questions:

- When you say narrow figures 2 and 3, you want the viewport reduced to encompass only the pertinent information on the figure? **Yes. For Fig 2, add in a label for Prairie City Road so the reader can be oriented.**
- Do you mean Final FS Figure 2-4 (HH Risk future on-site resident GW, SV, indoor air pathway)? Other? **Lynn – can you clarify? Fig 2-4 is very busy.**
- Are you looking for plan view and elevation view for PRB? **Something cartoon-y should be fine.**
- Does Figure 1-13 work for GET AB with plumes? **If there is a figure that is much more simplified, that would be preferred. There are a lot of tiny details/features in fig 1-13 so it is difficult to see the necessary info – especially when it is further reduced in size to fit in the PP.**

Christopher M. Fennessy, P.E.
 Aerojet Rocketdyne, Inc.
 Engineering Manager, Site Remediation
 PO Box 13222
 Sacramento, California 95813-6000
 Ph: 916-355-3341
 Fax: 916-355-6145
 Email: Christopher.Fennessy@Rocket.com

From: Keller, Lynn [<mailto:Keller.Lynn@epa.gov>]
Sent: Wednesday, November 21, 2018 12:45 PM
To: Fennessy, Christopher
Cc: Lae, Tom/SAC; Lane, Jackie; MacDonald, Alex@Waterboards (Alex.MacDonald@waterboards.ca.gov); MacNicholl, Peter@DTSC
Subject: [EXTERNAL] Request for revised Proposed Plan figures from Aerojet for the Area 40 PP

Hi, Chris. As we discussed yesterday, could you please provide us with some revised figures that will help refine the A40 PP and keep it concise, as well as ensure it correlates well with the final FS?

- Please update figures in attached draft to match Final FS figures
- Please send new figures as solo files so we can insert them as needed in PP
- Create a simplified Figure on Cleanup Goals
- Improve resolution on all figures
- Contamination plume lines on figures need distinguishing plume lines (e.g. hashed, dotted) in addition to different colors to ensure plumes can be differentiated when printed in black and white
- All figures need a few reference points included to orient the reader spatially, such as key roads and landmarks
- Add keys to all figures
- Narrow figures 1, 2, and 3
- Include Final FS figure 4
- Need basic PRB wall drawing to explain proposed 600' alternative including function, construction, and location
- Need GET AB and plume flow to it on figures
- Need a visual interpretation of Evaluation of Alternatives to simplify, such as a pie chart.

Jackie and Tom, please add anything you think I may have missed in our discussions.

Thank you, Chris, and have a happy Thanksgiving,
 Lynn

Lynn M. Keller, EI, PMP
 Remedial Project Manager SFD-7-1
 415.947.4162

US EPA Region 9

75 Hawthorne St, SFD-7-1
San Francisco, CA 94105

NOTICE - This communication may contain confidential and privileged information that is for the sole use of the intended recipient. Any viewing, copying or distribution of, or reliance on this message by unintended recipients is strictly prohibited. If you have received this message in error, please notify us immediately by replying to the message and deleting it from your computer.